AMENDMENT TO BISHOP RESOURCE MANAGEMENT PLAN

ENVIRONMENTAL ASSESSMENT, FINDING OF NO SIGNIFICANT IMPACT AND PROPOSED DECISION

EA Number: CA – 170 – 04 - 40

Bureau of Land Management
Bishop Field Office
351 Pacu Lane, Suite 100
Bishop, CA 93514

CHAPTER I: INTRODUCTION

A. Proposed Action Title/Type: *Amendment to the Bishop Resource Management Plan to Incorporate Fire Management Plan Objectives and Strategies*

B. Location of Proposed Action: All lands administered by the Bishop Field Office. See attached map in Appendix A.

C. Background Information: The Bishop Field Office Resource Management Plan (RMP) Record of Decision (ROD) was signed in March 1993 and met National Environmental Policy Act (NEPA) requirements, as well as other Federal and State regulatory requirements. To comply with the Federal Wildland Fire Management Plan Policy and Program Review (1995, updated in 2001) and the National Fire Plan's Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan (2002), all federal lands with burnable vegetation must be covered under an approved Fire Management Plan (FMP).

Bishop Field Office specialists in cultural resources, plants, wildlife, range management, fire and fuels, and recreation and wilderness assembled as an interdisciplinary team in April, 2004 to begin work on the FMP. Central to the FMP are Fire Management Units (FMUs), which are geographically defined areas of public lands within the Bishop Field Office, where management objectives and strategies for the following fire-related topic areas are the same:

- Wildland Fire Suppression
- Wildland Fire Use
- Prescribed Fire and Non-Fire Treatments
- Post-Fire Rehabilitation and/or Restoration
- Community Protection and Assistance

The interdisciplinary team delineated and described seven FMUs for the Bishop Field Office. In many cases, these FMUs correspond to Management Areas delineated and described in the RMP. Each FMU was examined and described in terms of the following:

- Location
- Characteristics
- Fire History and Occurrence
- Fuel Models, Weather/Climate, and Fire Behavior
- Fire Regime and Condition Class (FR/CC)
- Values at Risk
- Communities at Risk

Through this analysis, the team determined that the ultimate goal of restoring fire to the fire-adapted ecosystems of the Bishop Field Office is highly desirable, but numerous complex issues exist regarding where and how this restoration process occurs. Known and unknown cultural resources, sage grouse habitat, invasive weeds such as cheat grass, and Wildland-Urban Interface (WUI) concerns greatly complicate and restrict fire management opportunities. As a result, the FMP emphasizes keeping unplanned wildland fires small, and limiting Wildland Fire Use (WFU) to designated wilderness only. The team recognized prescribed fire and non-fire treatments are planned and conducted with greater site-specific oversight and interdisciplinary involvement than either wildland fire suppression operations or WFU. As such, the FMP relies heavily on prescribed fire and non-fire treatments as the preferred methods to advance and achieve fire restoration in the Bishop Field Office, while still addressing the concerns of other resources.

CHAPTER II – PROPOSED ACTION, PURPOSE AND NEED, PLAN CONFORMANCE AND ALTERNATIVES

A. Proposed Action: The BLM Bishop Field Office is proposing to amend its RMP to incorporate the objectives and strategies specific to each FMU, as described within the FMP. In the FMP, the lands administered by the Bishop Field Office are divided into seven FMUs (Coleville, Bridgeport Valley – Bodie Hills, Granite Mountain, Long Valley, Benton, Owens Valley, and Inyo Mountains Wilderness). The geographic location of each FMU and its specific objectives and strategies are described in Chapter III, Section D of the FMP (see Appendix B), and are incorporated here by reference. Table 1, below, highlights some of the quantifiable Fire Management Objectives found in the FMP.

Table 1

FMU Name and Number	10-year Maximum Wildfire Acres Burned	Maximum Wildfire Size (90% of all fires)	10-year Maximum Wildfire Use (WFU) Acres Burned	10-year Maximum Prescribed Fire and Non-Fire Treatment Acres
Coleville CA170-001	1% (215 ac.)	1 ac.	N/A	3% (645 ac.)
Bridgeport Valley – Bodie Hills CA170-002	2% (3,186 ac.)	1 ac.	N/A	15% (23,899 ac.)
Granite Mountain CA170-003	2% (2,706 ac.)	10 ac.	N/A	10% (13,532 ac.)
Long Valley CA170-004	1% (184 ac.)	1 ac.	N/A	5% (918 ac.)
Benton CA170-005	2% (3,571 ac.)	1 ac.	N/A	10% (17,855 ac.)
Owens Valley CA170-006	2% (3,797 ac.)	1 ac.	N/A	3% (5,696 ac.)
Inyo Mtns. Wilderness CA170-007	5% (2,251 ac.)	100 ac.	10% (4,502 ac.)	1% (450 ac.)

B. Purpose and Need for Proposed Action: The purpose of the Proposed Action is to fully incorporate the specific FMU objectives and strategies contained in the FMP as a programmatic element of the RMP. The FMP is a programmatic document which consolidates land and resource management decisions related to fire and fuels management from the RMP. The FMP then describes fire and fuels management strategies to fulfill RMP direction. In addition, the FMP applies a science-based understanding of fire's role in various ecosystems and incorporates corrective prescriptions to manage the effects of long-term fire exclusion in fire-adapted ecosystems. The FMP also considers recent national direction and legislation which stresses public and firefighter safety, hazardous fuels reduction, and community protection from wildland fire. The FMP prescribes additional land and resource management strategies and treatments to meet this recent direction.

The Proposed Action is needed because to fully incorporate the FMP as a programmatic element of the RMP and comply with National Environmental Policy Act (NEPA), an Environmental Assessment (EA) and Decision Record are needed to amend the RMP. Project plans would still be prepared and an appropriate level of environmental analysis would be conducted before any site-specific treatments prescribed by the FMP are implemented.

C. Land Use Plan Conformance: The Proposed Action is subject to the Bishop RMP, approved March 1993. The Proposed Action has been reviewed and is in conformance with the existing plan. If the Proposed Action is approved, the decision would be to amend the land use

plan so all fire and fuels management objectives and strategies for the seven FMUs, as described in the Bishop FMP, Chapter III, Section D (see Appendix B), are incorporated into the RMP as supplemental direction.

D. Alternatives:

- Alternative 1 (Proposed Action) – The fire and fuels management objectives and strategies for the seven FMUs, as described in the Bishop FMP, Chapter III, Section D (see Appendix B), would be applied to all BLM lands within the Bishop Field Office.

- Alternative 2 (No Action) – The fire and fuels management objectives and strategies for the seven FMUs, as described in the Bishop FMP, Chapter III, Section D (see Appendix B), would not be applied to any BLM lands within the Bishop Field Office. Existing guidance in the RMP would be used to direct fire management decisions.

CHAPTER III – AFFECTED ENVIROMENT, ENVIRONMENTAL CONSEQUENCES, AND CUMULATIVE EFFECTS

The Bishop Field Office manages approximately 750,000 acres of federal land in the eastern Sierra region. All of these lands are covered by one of the seven FMUs. A description of each of the FMUs is included in Chapter III, Section D of the FMP (see Appendix B). These FMU descriptions contain Affected Environment material and are incorporated here by reference. Updated resource information since the RMP's publication in 1993 is also provided.

A. Consideration of Critical Elements: The following Critical Elements are either not present or are unaffected by the Proposed Action:

- Farm Lands (prime or unique)
- Floodplains
- Wild and Scenic Rivers
- Wastes, Hazardous or Solid

All other Critical Elements are expected to be affected by the Proposed Action and are analyzed below. Additional elements, which are also expected to be affected by the Proposed Action, are also analyzed below.

1. Air Quality

Affected Environment

Air quality across the eastern Sierra region is generally good. There are two moderate PM 10 non-attainment areas (Mammoth Lakes and Mono Basin) and one serious PM 10 non-attainment area (Owens Valley).

There are three Class 1 airsheds within the eastern Sierra region (Hoover Wilderness, Ansel Adams Wilderness, and John Muir Wilderness). Prevailing winds usually favor smoke

dispersal away from these airsheds. These airsheds are more commonly impacted by prescribed fire conducted by agencies on the west side of the Sierra Nevada.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The Proposed Action aims to keep wildland fires relatively small and limits Wildland Fire Use (WFU) to only one FMU (Inyo Mountains Wilderness). The Proposed Action favors prescribed fire as the preferred method for incorporating fire into the environment.

Overall air quality would remain the same in the short term, as wildland fires continue to ignite and burn, but improve in the long term as more acres are treated and the number of very large wildland fire is reduced. Occasional days of poorer air quality would occur in association with prescribed fire, however smoke impacts from prescribed fire would be short term in nature and impact a smaller area than many wildland fires.

Impacts of Alternative 2 (No Action) – Air quality would slowly begin to decrease as wildland fires continue to burn larger acreages over time, as a result of continued fire suppression, limited vegetation treatment options, and lack of a cohesive plan for fire management.

2. Areas of Critical Environmental Concern (ACECs)

Affected Environment

Seven Areas of Critical Environmental Concern (ACEC) have been designated within the Bishop Field Office. These ACECs are so designated because they deserve special management attention to protect important historic, cultural, or scenic values, fish and wildlife habitat, or natural systems or processes. The seven ACECs for the Bishop Field Office are: Slinkard, Travertine Hot Springs, Conway Summit, Bodie Bowl, Fish Slough, Crater Mountain, and Keynot Peak.

Site management plans exist for Travertine Hot Springs, Bodie Bowl, and Fish Slough ACECs. Each plan is under varying stages of implementation. The Keynot Peak ACEC is located in the Inyo Mountains Wilderness and is governed by wilderness laws, policies, and regulations. See Wilderness section below for further information.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The Proposed Action's short-term impacts to ACECs would remain the same. Long-term impacts to ACECs' resource values would be beneficial, as the fire management objectives and strategies contained within the FMP would work toward restoration and enhancement of ACEC natural processes. The emphasis on rapid control of unplanned ignitions would limit the negative impacts to ACEC values associated with large-scale, high-intensity wildland fire.

Future fire management proposals for ACECs would conform to site specific management plans and require an environmental analysis before implementation.

Impacts of Alternative 2 (No Action) - Short term impacts to ACEC values would remain the same. Long-term negative impacts would increase as fuel loads increase and large-scale, high-intensity wildland fire continues. Important resource values associated with ACECs would be lost, some temporarily, others permanently.

3. Cultural Resources

Affected Environment

Cultural resource values within the Bishop Field Office area are high and exemplary instances of both historic and prehistoric resources occur. Located on the western fringe of the Great Basin physiographic province, prehistoric site densities are among the highest in the region, with the Bodie Hills yielding the highest concentration. Prehistoric habitation of the area occurred for at least the past 10,000 years. The eastern Sierra region was also subject to intensive historic mining, ranching and associated agricultural pursuits. The vigorous watershed, and associated biotic community, provided for a resource-rich habitat supporting the highest population density of Native American inhabitants in the Great Basin during the contact period. These same resources were conducive to historic ranching and agricultural occupations as well.

The cultural richness of the Owens Valley has attracted some of the most intensive research focus regionally, on both academic and cultural resource management levels. More than 10,000 cultural sites have been recorded in Inyo and Mono Counties from these investigations. Over 3,000 recorded sites occur on Public Lands administered by the Bishop Field Office. Roughly three (22,440 acres) to five percent (37,400 acres) of the Bishop Field Office area has been inventoried. Based on these data it is predicted that as many as 60,000 to 100,000 sites occur on public lands administered Bishop Field Office.

Of particular concern are sites and structures containing wood and other organic materials, such as historic buildings, wickiup sites and habitation sites with midden deposits or organic debris left from food processing activities. In the Eastern Sierra prehistoric archaeological site flaked stone assemblages are generally dominated by obsidian artifacts. This is influenced by seven major geological sources of obsidian occurring in the region. Research pertaining to the development and refinement of obsidian hydration as a chronometric dating technique has been a focus of Eastern Sierran research of prehistoric hunter-gatherer behavior and chronology. This research has been at the forefront of global efforts to improve and refine the obsidian hydration dating method.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The FMP would be implemented to fully comply with the Federal Land Policy Act (FLPMA) of 1976 and the National Historic Preservation Act (NHPA) of 1966, as amended, and as implemented by the State Protocol Agreement

between the California State Director and the California State Historic Preservation Officer of 1998 (SPA).

All known National Landmarks, National Register properties and potentially eligible properties have been identified for fire protection with special emphasis on the Saline Salt Tram, Manzanar War Relocation Center, Bodie National Historic Landmark and District, Dry Lakes Plateau National Register District, Cerro Gordo Townsite, Conway Ranch, Golden Gate Mill, and the Travertine ACEC.

Five management actions have been identified in the FMP which may affect cultural resources. These include:

1) Suppression
2) Prescribed Fire
3) Non-Fire Treatments
4) Restoration
5) Wildland Fire Use

Prescribed fire, non-fire treatments and restoration would have no consequences at this time, because they are subject to full evaluation as undertakings pursuant to the SPA and as defined at 36 CFR §800.16(y). These undertakings would be analyzed on project-by-project basis in future environmental analyses. Suppression and wildland fire use consequences are analyzed in more detail below.

Suppression:
Suppression actions are based upon Appropriate Management Response (AMR), as described in the FMP. Early suppression responses are generally an emergency undertaking, but designated cultural resources of concern listed below, should be considered during an emergency response. FMU names are in parentheses.

Sites listed on the National Register of Historic Places and National Landmarks:

- *Saline Salt Tram (Inyo Mountains Wilderness)*
- *Pawona Witu (Owens Valley)*
- *Chalfant Petroglyphs (Benton)*
- *Yellow Jacket Petroglyphs (Benton)*
- *Dry Lakes Plateau National Register District (Bridgeport Valley - Bodie Hills)*
- *Bodie National Historic Landmark (Bridgeport Valley - Bodie Hills)*
- *Manzanar War Relocation Center (Owens Valley)*

National Register Eligible Properties:

- *Cerro Gordo Townsite (Inyo Mountains Wilderness)*
- *CA-INY-30 (Owens Valley)*
- *Crater Mountain ACEC (Owens Valley)*
- *Conway Ranch (Bridgeport Valley - Bodie Hills)*
- *Travertine ACEC (Bridgeport Valley - Bodie Hills)*
- *Golden Gate Mill (Coleville)*

Points of Historical Interest:

- *Owensville (Owens Valley)*

- *Cottonwood Charcoal Kilns (Owens Valley)*
- *Swansea Townsite (Owens Valley)*
- *Bishop Creek Battle Ground (Owens Valley)*
- *Laws (Owens Valley)*
- *Carson & Colorado Railroad (Owens Valley and Benton)*
- *Townsite of Mono Lake (Bridgeport Valley – Bodie Hills)*
- *Mono Canals (Bridgeport Valley – Bodie Hills)*
- *Dog Town (Bridgeport Valley – Bodie Hills)*
- *Bodie Railroad and Lime Kiln (Bridgeport Valley - Bodie Hills and Granite Mtn.)*
- *Dynamo Pond (Bridgeport Valley – Bodie Hills).*

Many other cultural properties eligible for listing on the National Register of Historic Places occur within the Bishop Field Office area, but have not received formal recognition at this time.

Wildland Fire Use:
This management response is proposed only for the Inyo Mountains Wilderness FMU. The Saline Salt Tram and Cerro Gordo Townsite are specific resources identified for protection. While fire can be detrimental to historic structures, wickiups or other sites containing organic midden deposits, low intensity fire, under controlled conditions, may be beneficial. This management strategy introduces the fire regime back into the ecosystem reducing fuel loading, mitigating catastrophic fire events. With the protection of known significant resources identified, this strategy would ultimately have an important beneficial effect to long-term cultural resource protection through the reduced threat of catastrophic fire events.

Impacts of Alternative 2 (No Action) – Initially, risk of wildland fire damage to listed properties and other cultural resources would be the same or slightly greater, due lack of an overall plan for their protection during suppression efforts. Long term, risk would increase due continued fire suppression and limited vegetation treatment options.

4. Environmental Justice

Affected Environment

There are a few low-income or minority individuals/families residing within the area covered by this FMP. These are: Hammil Valley and Owens Valley towns. The ethnicity of these populations is primarily Native American or Hispanic.

There are seven Native American communities within the boundaries of the Bishop Field Office. Members of these communities hunt and do some subsistence collecting of materials from public lands in various FMUs, i.e. pinyon nuts, basket weaving materials, medicinal plants, etc.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - Implementing the Proposed Action various would not produce a significant negative impact to low income or minority populations, as their economic or social stability is not directly dependent on the vegetation communities.

The magnitude of potential change in the pinyon woodland could have a short term impacts to Native Americans accustomed to using the nearest areas for subsistence collecting. Planned treatments would carefully consider Native American concerns. Loss of pinyon pine due to wildfire would necessitate Native Americans having to travel a further distance to obtain their desired materials.

The Proposed Action would result in a cohesive plan for fire management. Over time, the plan would result in vegetative conditions which increase the likelihood human life and private property would be protected when future wildland fires occur.

Impacts of Alternative 2 (No Action) - Long-term, the lack of a cohesive plan for fire management would result in increasing risk to individuals and communities from wildland fire. The risk of large, high intensity wildland fires would continue to increase, especially in the pinyon pine woodlands. The economic and social stability of low income and minority populations would be affected by loss due to wildland fire. The effect may be greater than in the rest of the population, as low income and minority populations may have fewer resources available with which to recover.

5. Migratory Birds

See *Wildlife Habitats for Resident and Migratory Wildlife*, covered below.

6. Native American Concerns

Affected Environment

There are eight Federally recognized Native American communities in the eastern Sierra region, and two other communities who have ancestral ties to the area. They include from north to south and by FMU:

1. Washo (Coleville)
2. Bridgeport Indian Colony (Bridgeport Valley – Bodie Hills)
3. Benton Paiute Reservation (Benton/Granite Mountain.)
4. Bishop Indian Tribal Council (Owens Valley)
5. Big Pine Band of the Owens Valley (Owens Valley/Inyo Mountains Wilderness.)
6. Fort Independence Band of the Paiute Indians (Owens Valley/Inyo Mountains Wilderness.)
7. Lone Pine Band of the Owens Valley Paiute-Shoshone Indians (Owens Valley/Inyo Mountains Wilderness)
8. Timbisha Shoshone (Owens Valley/Inyo Mountains Wilderness)

Other communities, who are not currently Federally recognized include:

1. Coleville Paiute Community (Coleville)
2. Mono Lake Indian Community (Bridgeport Valley - Bodie Hills/Granite Mountain).

All of the communities are near, and in some cases even surrounded by an FMU. There are no treaty rights (hunting, fishing, etc.) associated with any of the communities or any of the FMUs.

Native American groups were notified and invited to public meetings to discuss the development of the FMP. All groups were provided an opportunity to respond to this EA and provide specific input regarding their concerns of traditional properties requiring protection.

Some members of these communities hunt and some do some subsistence collecting of materials from public lands – pinyon nuts, basket weaving materials, medicinal plants, fire wood, etc. However, this is general use and there were no specific "traditional use areas" identified by any of the Tribes in any of the FMUs. Other traditional uses or use areas have not been divulged to this office.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) – Since all prescribed fire and non-fire vegetation treatments would require a separate environmental analysis, any affected Tribes would be consulted. Hence, there are no known consequences associated with the Proposed Action.

Impacts of Alternative 2 (No Action) – The consequences are the same as for Alternative 1.

7. Noxious Weeds, Invasive Species

Affected Environment

The density of invasive, non-native plant species is variable within the Bishop Field Office, with the highest concentrations (cheat grass, *Bromus tectorum*) occurring in association with past fires, e.g. Mt. Tom (Owens Valley) and in Walker and Coleville. Higher cheat grass densities are also associated with historic sheep bedding and trailing locations on the east side of the Sierra Nevada foothills from Conway Summit, south to McGee Creek. In general, volcanic substrates (especially in the southern portion of the Owens Valley FMU) have higher annual weed densities (e.g, *Bromus madritensis* var. *rubens* and *Bromus tectorum),* which are related to higher levels of phosphorus, potassium, calcium and magnesium (Woodward and Ustin, 1988). The following is a listing of *Non-Native Invasive Species Known to Occur in the Bishop Field Office Area:*

- *Bassia hyssopifolia* – Bassia
- *Bromus tectorum* – cheat grass

- *Bromus madritensis* var. *rubens* – red brome
- *Halogeton glomeratus* – Halogeton
- *Lactuca serriola* – pricky lettuce
- *Lepidium latifolium* – perennial pepperweed
- *Medicago sativa* - alfalfa
- *Melilotus alba* – sweet clover
- *Poa bulbosa* – bulbous blue grass
- *Salsola tragus* – Russian thistles
- *Sisymbrium altissimum* – skeleton weed
- *Tamarix ramossisima* – salt cedar
- *Tribulus terrestris* – puncture vine

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) – The Proposed Action would reduce the risk of weed invasions following large-scale wildfire events by reducing fuel distribution and densities in surrounding "at risk" plant communities, e.g. sagebrush steppe and pinyon pine woodlands. Slight (<5%) increases in cheat grass invasion could occur around the base of removed pinyon pine, but would be mitigated by weed control treatments.

Impacts of Alternative 2 (No Action) - Short-term and long-term conditions for noxious weeds and invasive species would probably degrade due to an increase in large, damaging wildland fires (including vegetation type conversion from native species to cheat grass), limited vegetation treatment options, and lack of a cohesive plan for fire management.

8. Rangeland Resources

Affected Environment

All FMUs except the Inyo Mountains Wilderness have livestock grazing in designated allotments. The average dependency on public land grazing is 4 to 6 months per year. The Bishop RMP ROD states:"Burned areas will be rested for three years before grazing."

Therefore, depending upon factors such as acreage burned, burn severity, time of year, species composition/density, location and time and amount of precipitation, it is difficult to assess potential impacts to livestock producers for loss of forage due to wildland fire. This is particularly apparent since the acreage or percentage limits per FMU could occur on one allotment versus scattered among several allotments.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) – The Proposed Action would reduce the risk of excessive loss of forage by reducing uncontrolled, large-scale wildfire events over time. An interdisciplinary approach to vegetation treatment through prescribed fire and non-fire means offers a more controlled situation than wildland fire. Strategic targeting of pinyon

pine, which has encroached into the shrub steppe would be beneficial for rangeland resources.

Impacts of Alternative 2 (No Action) - Long-term conditions for rangeland resources would probably degrade due to an increase in large, damaging wildland fires (including vegetation type conversion from native species to cheat grass), limited vegetation treatment options, and lack of a cohesive plan for fire management. These wildland fires would necessitate a 3-year rest period from grazing by domestic livestock, and thus negatively impact grazing permittees.

9. Soils

Affected Environment

Coleville and Bridgeport Valley – Bodie Hills FMUs
Dominant soils are grouped into four main types and are derived from metamorphic, volcanic and granitic parent materials. The first soil type occurs on nearly level to gently slopes with cooler soils occurring in closed, drained to internally-drained basins that are sometime saline to alkaline. The second soil type occurs on moderately sloping to steeply sloping sites and is comprised of well-drained cool and cold soils of the Bodie Hills; many are very rocky to cobbly in texture. The third soil type occurs on nearly level to steeply sloping sites on high terraces of Mono Lake and low foothill slopes or alluvial fans of the Bodie Hills and is mostly sandy or very gravelly in texture. The fourth soil type occurs on moderately to steeply sloping sites and is comprised of the cold soils on the Sierra Foothill-slopes and glacial deposits.

Soils that are sandy, strong cobbley, and/or very gravelly may tend to limit the establishment of seeds and seedling development. Very shallow soils may also restrict water infiltration and plant rooting. These soils occur primarily on slopes and ridges.

There is potential water erosion mainly along stream banks, in stream channel bottoms, in meadows, and at springs. Potential wind erosion problems would more likely exist in the Mono Basin in soils with high surface concentrations of fine sand.

Granite Mountain, Benton and Long Valley FMUs
The soil classification of these FMUs was mapped by the Natural Resource Conservation Service (NRCS) in the early 1990s at an Order 3 survey level. Parent materials are comprised primarily of volcanic, and in the Granite Mountains, of granitic substrates. Soils of the mountainous region are shallow to very deep, well drained sandy loams. Soils of the intermountain valleys are moderate to very deep and are well to somewhat excessively drained ashy loamy sands. Soils of the stony alluvial fans are very deep, well to somewhat excessively drained sands, loamy sands, and sandy loams. Soils of the mountainous regions and stony alluvial fans tend to limit the establishment of seeds and seedling development because of the sandy to cobbley texture. Soils within the Volcanic Tableland Association are very shallow which restricts water infiltration and plant rooting. These soils primarily occur on slopes and ridges. Ash loamy sands are inclusions occurring within depressions or

valleys between the slopes. These soils are well drained, which provide a favorable habitat for both grasses, and mixed desert and Great Basin shrub species.

The erosion potential of these soils ranges from slight to moderate on the valley floor, due to wind erosion and can be somewhat attributable to the effects of cattle grazing and hoof action which disturbs the soil surface. Valley floor soils may also have inclusions of calcareous loam along remnant river terraces that exhibit duripans which inhibit water infiltration and restrict shrub rooting depths. The erosion potential on the alluvial fans is low due to the rocky to gravelly surface texture.

Owens Valley FMU

Three main soil associations exist among the FMU and include soils of Lava Flows, Mountainous Regions, and soils of the Stony Alluvial Fans. Lava Flows soils are cindery loamy sands and sandy loams on basaltic lava flows and cinder cones. These soils are very deep and well to somewhat excessively drained. Available water capacity is low and the hazard of water erosion is moderate. Wind erosion hazard is slight. Mountainous Region soils are primarily sandy loam, which are generally shallow to deep and well drained. Available water capacity is low to moderate. The hazard of erosion is slight to moderate for water and moderate to severe for wind. Because of the rapid intake and deep percolation of moisture, loss from runoff is negligible. This permits deep rooted plants to grow vigorously under arid conditions. These soils are highly susceptible to wind erosion if vegetation cover is removed. Stony Alluvial Fan soils are primarily gravelly loam, which are generally very deep and well drained. Alluvial fans are comprised of either shadscale gravelly loam or gravelly loams. These soils are mostly shallow, well drained, with gravelly to cobbly surfaces and subsurface textures. These soils tend to limit the establishment of seeds and seedling development. Valley floor soils may also have inclusions of calcareous loam along remnant river terraces that exhibit duripans that inhibit water infiltration and restrict shrub rooting depths. Erosion potential of these soils ranges from slight to moderate on the valley floor due to wind erosion.

Inyo Mountains Wilderness FMU

Soils that comprise the Inyo Mountains FMU are derived from metamorphic shales and volcanic parent materials with inclusions of calcareous substrates. Slopes are steep and where the Kingman Shale formation occurs, are susceptible to erosion, especially in association with roads. The majority of slopes and ridges however exhibit high vegetation cover and are not as susceptible to wind and water erosion.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The Proposed Action would not adversely affect soil resources due to the limitations on fire size and the fuel treatments that would occur on sites not susceptible to soil erosion.

Impacts of Alternative 2 (No Action) - Short-term and long-term conditions for soils would probably degrade due to an increase in larger, high-intensity wildland fires, limited vegetation treatment options, and lack of a cohesive plan for fire management.

10. Threatened or Endangered Animal and Plant Species

Affected Environment - Special Status Animal Species

Special Status Animal Species are those species listed under the Endangered Species Act of 1973, P.L. 93-295 (as amended) or found as California-BLM Sensitive Species described under Information Bulletin No. CA-99-86. The Bishop Resource Management Plan (RMP, 1993) at page 17 requires the yearlong protection of special status animal species habitat. Of the 11 special status animal species, the sage grouse is in the greatest peril of encountering catastrophic habitat loss or habitat degradation due to wildland fire. Habitat utilized by the Sierra Nevada bighorn sheep is also highly susceptible to unplanned natural and human caused fire. The other species occupy; 1) geographically small sites, 2) aquatic habitat, and/or 3) a plant community (e.g. desert scrub) which have relatively low potentials for disastrous alteration from unplanned wildland fire. Table 2, below, describes these species and the FMUs where they occur.

Table 2

Common Name	Scientific Name	Status	FMU(s)
Owens pupfish	Cyprinodon radiosus	Endangered	Benton, Owens Valley
Owens tui chub	Siphateles bicolor snyderi	Endangered	Benton, Long Valley, Owens Valley
Lahontan cutthroat trout	Oncorhynchus clarki henshawi	Threatened	Coleville
Inyo Mountains slender salamander	Batrachoseps campi	CA-BLM Sensitive	Inyo Mountains Wilderness, Owens Valley
Panamint alligator lizard	Elgaria panamintinus	CA-BLM Sensitive	Owens Valley
Bald eagle	Haliaeetus leucocephalus	Threatened	All
LeConte's thrasher	Toxostoma lecontei	CA-BLM Sensitive	Inyo Mountains Wilderness, Owens Valley
Sage grouse	Centrocercus urophasianus	CA-BLM Sensitive	Coleville, Bridgeport Valley – Bodie Hills, Granite Mountain, Long Valley, Benton
Desert bighorn sheep	Ovis canadensis nelsoni	CA-BLM Sensitive	Benton
Sierra Nevada bighorn sheep	Ovis Canadensis californiana	Endangered	Bridgeport Valley – Bodie Hills, Owens Valley
Townsend's western big-eared bat	Plecotus townsendii	CA-BLM Sensitive	Bridgeport Valley – Bodie Hills, Granite Mountain, Benton, Owens Valley

Environmental Consequences – Special Status Animal Species

Impacts of Alternative 1 (Proposed Action) – The Proposed Action would not adversely affect special animal species habitat management and protection decisions identified in the Bishop

RMP. Through FMP emphasis on rapid control of unplanned fires, use of prescribed fire and fuels management treatments, habitat conditions for sage grouse, in particular, would see improvement and lessen the potential for catastrophic habitat loss. Unplanned ignitions would cause displacement for some of the other species, like the LeConte's thrasher and desert bighorn sheep. Habitat for these and the other species would benefit from a coordinated approach to fire management directed, in part, toward restoring a natural dynamic to plant communities.

Impacts of Alternative 2 (No Action) – Habitat conditions for special animal species, particularly the sage grouse, would likely degrade due to an increase in large-scale, high-intensity wildland fires. Limited options for vegetation management and no cohesive approach to fire management would contribute to degraded habitat conditions for most special animal species.

Affected Environment - Special Status Plant Species

Special Status Plant Species are those species that have been listed by the California Native Plant Society as List 1B species, which includes plants that are rare, threatened or endangered in California and elsewhere. All of the plants constituting List 1B meet the definition of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. The Bishop Resource Management Plan (RMP, 1993, p. 17) stipulates yearlong protection of sensitive plants (Special Status Plants) and their associated habitats. See Appendix C for a listing of rare plants that occur or have potential habitat on the Bishop Field Office.

Environmental Consequences – Special Status Plant Species

Impacts of Alternative 1 (Proposed Action) - The Proposed Action would not adversely affect rare plants because prior to any ground disturbing actions, rare plant site surveys would be conducted and populations avoided. Actions designed to reduce fire size would benefit rare plants and associated communities by reducing the risk of habitat alteration and risk of weed invasion.

Impacts of Alternative 2 (No Action) - Short-term and long-term habitat quality for special status plants would probably degrade due to an increase in large, damaging wildland fires (including vegetation type conversion from native species to cheat grass), limited vegetation treatment options, and lack of a cohesive plan for fire management.

11. Vegetation

Affected Environment

General
A wide variety of plant communities occur within the Bishop Field Office. Appendix 1 *Desired Plant Community Definitions*, of the Final Bishop Resource Management Record of Decision (1991) identifies key vegetation communities and associated management goals.

However, included in this EA are additional plant communities, e.g. desert scrub, which were not included in the RMP and are included in this Proposed Action analysis.

Desert Scrub

A baseline range inventory for the Bishop Field Office was completed in 1977 and correlated to the recently completed 1999 NRCS soil/vegetation inventory to document plant cover and composition as well as develop updated ecological site descriptions. The Benton and Owens Valley FMUs occur in the Northern Mojave and Great Basin Floristic Provinces. The dominant plant communities are mixed desert scrub, shadscale scrub and sagebrush/bitterbrush. Shadscale scrub is dominated by shadscale (*Atriplex confertifolia)* and budsage (*Artemisia spinescens)* with a sparse (15% or less) understory of desert needlegrass (*Achnatherum speciosum)* and Indian rice grass (*Achnatherum hymenoides)*, (Barbour and Major, 1977). Additional species include, but are not limited to: hop sage (*Grayia spinosa),* horsebrush (*Tetradymia canescens* and *T. axillaris),* Nevada ephedra (*Ephedra nevadensis),* winter fat (*Krasheninnikovia lanata),* yellow rabbitbrush (*Chrysothamnus naseosus),* green rabbitbrush (*Chyrsothamnus teretifolious),* gold bush (*Ericameria cooperi),* and cheesebush (*Hymenoclea salsola).* During years of high precipitation, annual forbs are abundant and include species from the following genera: Cryptantha , Mentzelia, Linanthus, Phacelia, as well as genera in the Asteraceae Family.

Sagebrush/Bitterbrush

A baseline range inventory for the Bishop Field Office was completed in 1984 using the BLM Site Inventory Method (SVIM). The Coleville, Bridgeport Valley – Bodie Hills, Granite Mountain, Benton and Long Valley FMUs occur in the Great Basin Floristic Province. The dominant plant communities are sagebrush/bitterbrush and pinyon woodland. Sagebrush/bitterbrush communities can be dominated by a wide variety of sagebrush species to include; (*Artemisia arbuscula, A. tridentata* ssp. *vaseyana*, *A. tridentata* ssp. *tridentata*, *A. tridentata* ssp. *wyomingensis* and *A. tridentata* ssp. *parishii*), and bitterbrush (*Purshia tridentata* var. *tridentata)*. Wyoming sagebrush is generally restricted to lower elevation portions of the above-mentioned FMUs. Understory grasses such as Indian rice grass (*Achnatherum hymenoides*), desert needlegrass (*Achnatherum speciosum*), needle and thread (*Hespirostipa comota*), western needlegrass (*Achnatherum occidentalis*), and Thurber's needlegrass (*Achnatherum thurberianum*) can make up 15-20% of the overstory cover at the higher elevations of the FMUs (Barbour and Major 1977). Additional species include, but are not limited to: oceanspray (*Holodiscus discolor),* snowberry (*Symphoricarpus rotundifolius)*, currant and gooseberry species; (*Ribes cereum, R. inerme, R. velutinum)*, service berry (*Amelanchier utahensis),* bittercherry (*Prunus emarginata),* spiny hop sage (*Grayia spinosa),* horsebrush (*Tetradymia canescens),* Nevada and green ephedra (*Ephedra nevadensis.* and *E. viridis),* and yellow and curly-leaved rabbitbrush (*Chrysothamnus nauseosus and C. viscidiflorus).* During years of high precipitation annual forbs are abundant and include, but are not limited to, species from the following genera: Astragalus, Arabis, Cryptantha, Eriogonum, Gilia, Lupinus, Onagaraceae, Phacelia, Phlox as well as genera in the Asteraceae Family.

Pinyon Woodland

Pinyon woodland communities occur throughout all the FMUs and are dominated by an overstory (15-40% cover) of singleleaf pinyon pine (*Pinus monophylla)* with a sagebrush/bitterbrush understory. Perennial forbs include species from the following

genera: Astragalus, Cryptantha, Eriogonum, and Phlox. Other conifer species include; western juniper (*Juniperus occidentalis* var. *australis*, Utah juniper (*Juniperus osteosperma*), and isolated stands of lodgepole pine (*Pinus contorta),* Jeffrey pine (*Pinus jeffreyi)*, limber pine (*Pinus flexilis)* and white pine (*Pinus monticola*).

White Fir

White fir (*Abies concolor)* stands are isolated to approximately 370 acres in the Coleville FMU and consist of old-growth trees with a diverse shrub understory of bittercherry (*Prunus emarginata*), snowberry (*Symphoricarpus parishii*), wild rose (*Rosa woodsii* var. *ultramontana*), and yellow currant (*Ribes aureum*).

Bristlecone Pine

Bristlecone pine (*Pinus longaeva*) stands are isolated to approximately 1,200 acres in the Inyo Mountains Wilderness FMU. Bristlecone co-occurs with limber pine and the understory is sparse and comprised of low sage (*Artemesia arbuscula*), black sage (*Artemesia nova*), gray horsebrush (*Tetradymia canescens*), curly-leaved rabbit brush (*Chrysothamnus viscidiflorus*) and associated species from the following genera: Astragalus, Arabis, Cryptantha, Eriogonum, Gilia, Lupinus, Onagaraceae, Phacelia, Phlox, as well as genera in the Asteraceae Family.

Aspen

Aspen groves are a unique and important plant community type within the Bridgeport Valley – Bodie Hills and Coleville FMUs. They range in size from small scattered stands to large, >5 acre complexes. Age-class distribution within these complexes is generally even-aged with moderate to low juvenile (sucker recruitment). Understory vegetation is dominated by California brome (*Bromus carinatus)*, *Hordeum jubatum,* hawksbeard (*Crepis acuminata*), *Descurania sophia,* currant (*Ribes velutinum)* and occassional snowberry (*Symphoricarpos rotundifolius*). In more impacted groves, understory vegetation is dominated by *Bromus tectorum,* mullein (*Verbascum thapsus),* Canada thistle (*Cirsium arvense)* and nettle (*Urtica dioica)*.

Wetlands/Riparian Zones

Low to mid elevation riparian areas within the Granite Mountain, Long Valley, Benton, and Owens Valley FMUs include the following plant communities (Barbour 1977): Transmontaine Freshwater Marsh (permanently flooded), Freshwater Seep, Transmontane Alkali Marsh (seasonally flooded), Alkali Seeps, and Alkali Meadow (saturated soils). The wetland community types integrade following a gradient of moisture and alkalinity.

Transmontane Freshwater Marsh is a Rare Natural Community, State-ranked S2.2 (threatened). Marsh vegetation is dominated by bulrush (*Scirpus americanus*), (*Juncus* spp.), sedge *(Carex aquatilis* and *C. nebrascensis*), and spikerush (*Eleocharis* spp.). Common perennial wetland forbs include marsh speedwell (*Veronica scutellata)*, monkeyflower (*Mimulus guttatus*) and arrow grass (*Triglochin concinna*).

Transmontane Alkali Marsh is a rare natural community, State-ranked S2.1 (very threatened). As the wetland system shifts away from its freshwater source, marsh and seep vegetation shift to a more alkaline community type dominated by saltgrass (*Distichlis spicata*).

Alkali Meadow is a rare natural community, State-ranked S2.1 (very threatened). Dominant species include a variety of perennial grasses such as salt grass (*Distichlis spicata*), alkali cordgrass (*Spartina gracilis)*, Great Basin wild rye (*Leymus cinereus*), alkali sacaton (*Sporobolus airoides*), bluegrass (*Poa secunda* ssp. *juncifolia)* and meadow brome (*Hordeum brachyantherum*). Common rushes include baltic rush (*Juncus balticus*) and perennial forbs include *Crepis runcinata* ssp. *hallii*, *Ivesia kingii* var. *kingii* and *Pyrrocoma racemosa* var. *sessilifolia*, alkai peppergrass (*Lepidium montanum* var. *nevadense*) and blue-eyed grass (*Sisyrinchium halophytum).*

The two dominant ecological meadow types within the Bridgeport Valley - Bodie Hills FMU are mesic graminoid and dry graminoid (Weixelman, Zamudio 1999). Mesic graminoid meadows are wet to moist well into the growing season. Depth to saturation averages 34 cm. The most common soil taxon is Typic Cryaquoll with a peat or muck rich surface layer. This type is most common on drainageways, but can also be found on floodplains. Dominant species in the mesic graminoid meadow include, but are not limited to: Nebraska sedge (*Carex Nebrascensis), Carex simulata, Carex lanuginosa, Carex utriculata*, *Deschampsia cespitosa, Hordeum brachyantherum, Muhlenbergia filiformis, Epilobium ciliatum, Stellaria longipes var longipes* and *Aster occidentalis.* Willow stands can border these communities and include such species as, *Salix geyeriana*, *S. lemmonii, S. lutea* and *Salix exigua*.

Dry graminoid meadows are most commonly found on trough drainageways and stream terraces. Soils lack saturation and the most common soils are Haplocryolls indicated by dark, mollic surface horizons. Dominant species in the dry graminoid meadow include, but are not limited to: *Poa secunda* ssp. *juncifolia, Muhlenbergia richardsonis, Carex praegracilis,* thin-stemmed wheatgrass (*Elymus trachycaulus), Carex filifolia,* Baltic rush (*Juncus balticus), Penstemon rydbergii, Gayophytum diffusum, Trifolium monanthum,* and yarrow (*Achillea millefolium).*

Riparian vegetation on stream reaches in the Owens Valley FMU is dominated by primarily woody species such as willows: *(Salix lutea, S. lasiolepis, S. exigua, S.goodingii, S. lucida)*, western water birch (*Betula occidentalis*), and wild roses *(Rosa woodsii* var *ultramontana),* Herbaceous species are primarily comprised of sedges *(Scirpus* and *Carex spp.)* and rushes *(Juncus spp.).* Black oak (*Quercus* kellogii) and canyon live oak (*Quercus chrysolepis)* stands that occur along Ash, George, and Oak Creeks are anomalous components of eastern Sierra riparian vegetation. They are either remnant patches of the former Pliocene forests of the interior or the result of the west-to-east acorn trade among native people of the Sierra (Taylor 1982).

The relatively narrow riparian widths that comprise these reaches are driven by the geomorphology of alluvial fan systems. Despite the confined nature of these streams the condition of the riparian vegetation is good with regard to plant cover and composition.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The Proposed Action would not alter Desired Plant Community management, conservation or protection goals identified in the Bishop RMP.

The FMP's emphasis on rapid control of unplanned ignitions, both natural and human caused, should significantly limit the amount of vegetation loss and degradation in plant communities associated with large, unplanned wildland fire. The FMP also includes refined direction for the management of wildland fire incidents in relationship to other plant communities, e.g. desert scrub not identified in the RMP.

Site specific fuels reduction and vegetation modification treatments would remove specific amounts of target vegetation, e.g. pinyon pine in areas where encroachment has been identified as adversely affecting wildlife habitat components. Removal of pinyon pine would stimulate release of extant sagebrush and associated plant species to pre-encroachment composition levels. Temporary seral shifts, e.g. to earlier successional states, would occur with the Proposed Action alternative, but would be designed in such a way so as to increase the distribution of seral mosaics necessary for meeting a greater diversity of wildlife species forage needs.

Fire management direction set forth in the FMP would greatly benefit all the plant communities discussed above. Key actions such as limiting fire size, and fuel reduction actions would greatly reduce the risk of large, damaging wildland fires, especially in communities such as sagebrush steppe and pinyon pine woodlands, which are highly susceptible to cheat grass invasion and commensurate increases in fire frequency.

Impacts of Alternative 2 (No Action) - Short-term and long-term vegetation conditions would probably degrade due to an increase in large, damaging wildland fires (including vegetation type conversion from native species to cheat grass), limited vegetation treatment options, and lack of a cohesive plan for fire management.

12. Visual Resources

Affected Environment

The public lands in the Bishop Field Office are blessed with landscapes of high scenic value and diversity. These public lands are bounded by City of Los Angeles Dept. of Water and Power lands and Inyo National Forest lands. Since there is little private land available for development, the area's scenic beauty remains largely unspoiled. Millions of visitors from throughout the world come to the eastern Sierra drawn by its magnificent scenery. The RMP and EIS (1991) provide a discussion on the importance of the area's scenic values.

The Bishop RMP places strong management emphasis on visual resource management. The RMP prescriptions for public lands provide the guidance necessary for fire proposals to conform to visual resource management objectives identified in Appendix 3 of the Bishop ROD (1993).

The RMP places all public lands into four resource management class descriptions to guide visual resource management for all proposed projects. These classes identify the visual management standards or criteria against which a proposal is measured. These standards are described in Appendix 3 of the ROD (1993). Class 1 is most restrictive and is usually applied to wilderness areas, scenic ACECs, wild and scenic rivers, etc. The Class 2 objective is less restrictive and emphasizes retention of the characteristic landscape. Class 3 emphasizes partial retention of the landscape, while Class 4 allows major modification of the landscape.

Table 3, below, identifies the percentage of public lands in the Bishop Field Office that applies to each class:

Table 3

Class 1	Class 2	Class 3	Class 4
6%	42%	50%	2%

Since much of the public lands in the eastern Sierra are bisected by well-traveled roads, the visual sensitivity to the casual motorist is high. The RMP currently provides prescriptions to maintain the area's scenic quality. Any proposal for mechanical treatments, prescribed burns, etc. would undergo a project level environmental analysis to identify impacts to visual resources and mitigations.

Environmental Impacts

Impacts of Alternative 1 (Proposed Action) - Impacts to visual resources would be positive under this alternative. In the long term, mechanical treatment of vegetation to reduce fuel loading would enhance the area's visual resources by preempting large-scale, high-intensity wildland fires from burning additional public lands and creating longer lasting visual scars. A natural mosaic of vegetation would re-emerge more quickly from less intense prescribed actions, as this alternative promotes.

Impacts of Alternative 2 (No Action) - The impact of this alternative on would be a progressive decline of visual resources quality due to an increase in large, damaging wildland fires, limited vegetation treatment options, and lack of a cohesive plan for fire management.

13. Water Quality

Affected Environment

Surface water is present throughout the Bishop Field Office in the form of several streams, springs, and small lakes and ponds. The Final Bishop Resource Management Plan and Environmental Impact Statement (RMP/EIS 1991) identified 69 streams (146 stream miles) and 325 springs that support surface water during some portion of the year. Significant portions of 4 major watersheds are found in the Bishop Field Office including the West Walker River, the East Walker River, the Mono Basin, and the Owens River.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The Proposed Action would not alter water quality protection and improvement goals or standard operating procedures (Best Management Practices) identified in the Bishop RMP. In general, the Proposed Action would provide the framework for a proactive fire and fuels management approach to help maintain water quality as it relates to fire management actions throughout the Bishop Field Office. The FMP guidance and objectives for the management of wildland fire incidents would help protect many key riparian areas and associated water quality values. The FMP emphasis on rapid control of unplanned ignitions, both natural and human-caused, should significantly limit the amount of water quality degradation associated with large catastrophic wildfire. In addition, the FMP emphasis on the use of prescribed fire and fuels management treatments as tools to restore natural ecological processes should improve and maintain overall water quality conditions over the long-term. Some temporary, site-specific degradation of water quality would occur as the result of larger unplanned fires and associated suppression activities. Overall, water quality should be maintained, at a minimum, with implementation of the Proposed Action.

Impacts of Alternative 2 (No Action) – Short-term water quality would remain the same. Long-term water quality may decrease due to an increase in large-scale wildland fires, limited vegetation treatment options, and lack of a cohesive plan for fire management.

14. Wetlands/Riparian Zones

See *Vegetation*, covered above.

15. Wildlife Habitats for Resident and Migratory Wildlife (including Migratory Birds)

Affected Environment

A wide variety of wildlife habitats and associated resident and migratory wildlife species occur within the Bishop Field Office. Chapter 3, Affected Environment, of the Final Bishop Resource Management Plan and Environmental Impact Statement (RMP/EIS 1991) identifies and describes several key wildlife indicator species. Species specifically addressed and incorporated here by reference include; sage grouse and quail, mule deer, tule elk, pronghorn, and a relatively short list of threatened, endangered, candidate, and other sensitive species. These species still provide the focus for most wildlife habitat management, conservation, and protection efforts in the Bishop Field Office. Recent management has also emphasized conservation and protection of resident and migratory songbird habitats.

The RMP/EIS also identifies and describes several plant communities important to terrestrial wildlife species, as well as aquatic and fisheries habitats that are incorporated here by reference. Plant communities of special interest from a wildlife habitat and fire management perspective include; aspen, riparian woodland, riparian scrub, old growth coniferous forest, Jeffrey pine forest, pinyon-juniper woodland, sagebrush-bitterbrush, and sagebrush. Fire management in pinyon-juniper and sagebrush-bitterbrush types is of

particular concern due to several recent large fires on critical mule deer winter ranges. These include the West Walker winter range in the Coleville FMU, and the Round Valley and Goodale winter ranges in the Owens Valley FMU. Fire management in sagebrush types is also an acute wildlife habitat management concern due to the current west-wide focus on the conservation of sage grouse and other sagebrush obligate wildlife species. Sagebrush species of particular interest from a wildlife habitat and fire management perspective in the Bishop Field Office include mountain big sagebrush (*Artemisia tridentada spp. vaseyana*), Wyoming big sagebrush (*Artemisia tridentada spp. wyomingensis*), basin big sagebrush (*Artemisia tridentada spp. tridentada*) and low sagebrush (*Artemisia arbuscula spp. arbuscula*). Fire management in sagebrush habitats is particularly important in the Bridgeport Valley - Bodie Hills FMU, the Granite Mountain FMU, the Long Valley FMU, the Benton FMU, and the Coleville FMU.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The Proposed Action would not alter wildlife habitat management, conservation, or protection goals identified in the Bishop RMP. In general, the Proposed Action would provide the framework for a proactive fire and fuels management approach to help achieve Desired Plant Community (DPC) goals. The FMP guidance and objectives for the management of wildland fire incidents would help protect many important wildlife habitats. The FMP emphasis on rapid control of unplanned ignitions, both natural and human-caused, should significantly limit the amount of wildlife habitat loss and degradation associated with large catastrophic wildfire. In addition, the FMP emphasis on the use of prescribed fire and fuels management treatments as tools to restore natural ecological processes should improve and maintain wildlife habitat conditions over the long-term. Except in the Wildland-Urban Interface (WUI), FMP guidance and objectives should provide significant benefits to overall wildlife habitat conditions within the Bishop Filed Office.

Some site specific fuels reduction and fuel profile modification treatments would temporarily displace and/or disturb resident and migratory wildlife species during project implementation. Displacement effects would be long-term where habitat characteristics are modified to a point that they no longer provide suitable habitat for the wildlife species that occupied the site prior to project implementation. Disturbance effects would be most significant in key seasonal use habitats during key seasonal use periods. Displacement effects would be most significant in habitats of limited extent or in habitats of threatened, endangered, candidate and other sensitive species.

Fuels reduction treatments designed specifically to provide protection for adjacent private property and assets in the WUI would result in the direct loss of some wildlife habitat. Many of these habitats are already compromised and habitat quality has been reduced by development activities on adjacent lands. In some cases, fuels reduction treatments in these areas may provide some protection to wildlife habitats by protecting those habitats from fires started on adjacent private properties. Habitat loss associated with fuels reduction treatments in the WUI would be most significant in habitats of limited extent or in habitats of threatened, endangered, candidate and other sensitive species.

Desired Plant Community (DPC) descriptions and objectives provide the foundation for most wildlife habitat management actions occurring under auspices of the Bishop RMP. Outside of the WUI, FMP guidance and objectives would facilitate achievement of DPC goals and promote protection of key or critical wildlife habitats and other resource values from large catastrophic wildfire. Plant communities and associated wildlife habitats that would significantly benefit from guidance and objectives identified in the FMP include:

1. Old growth coniferous forests that provide habitat for mountain beaver and other wildlife species in the Coleville FMU.

2. Pinyon-juniper woodlands and sagebrush-bitterbrush habitats that serve as key winter range for the West Walker deer herd in the Coleville FMU.

3. Aspen groves that provide seasonal habitat for migratory mule deer, migratory songbirds, and a host of other wildlife species in the Bridgeport Valley - Bodie Hills FMU.

4. Pinyon-juniper woodlands and sagebrush-bitterbrush habitats that provide key habitat for migratory mule deer, sage grouse, pronghorn, migratory songbirds and other sagebrush associated wildlife species in the Bridgeport Valley - Bodie Hills FMU.

5. Pinyon-juniper woodlands and sagebrush-bitterbrush habitats that provide important habitat for migratory mule deer, sage grouse, pronghorn, migratory songbirds and other sagebrush associated wildlife species in the Granite Mountain FMU.

6. Jeffery pine forests that provide seasonal habitat for a variety of wildlife species in the Granite Mountain and Long Valley FMUs.

7. Sagebrush-bitterbrush habitats that provide key habitat for migratory mule deer, sage grouse, migratory songbirds and other sagebrush associated wildlife species in the Long Valley FMU.

8. Pinyon-juniper woodlands and sagebrush-bitterbrush habitats that provide critical winter range and migratory habitat for the Casa Diablo deer herd, as well as habitat for sage grouse, pronghorn, resident and migratory songbirds and other sagebrush associated wildlife species in the Benton FMU.

9. Wetlands and associated meadow habitats in Fish Slough that provide critical habitat for Owens Pupfish and other wetland associated species in the Benton FMU.

10. Sagebrush-bitterbrush habitats that serve as critical winter range for the Round Valley, Goodale and Monache deer herds, key calving habitat for tule elk, and seasonal habitat for resident and migratory songbirds and other sagebrush associated species in the Owens Valley FMU.

11. Pinyon-juniper woodlands and sagebrush-bitterbrush habitats that provide habitat for resident mule deer, resident and migratory songbirds and other sagebrush associated wildlife species in the Inyo Mountains Wilderness FMU.

In summary, the Proposed Action would not alter wildlife habitat management, conservation or protection goals identified in the Bishop RMP. Some reduction in overall wildlife habitat quality adjacent to developed private lands would occur as the result of fuels reduction projects designed to protect human life and resources in the WUI. In some cases, WUI fuels reduction projects would protect larger intact habitats adjacent to human developments from fires initiated on adjacent private lands. In most cases, FMP guidance and objectives would assist the Bishop Field Office in achieving DPC goals for many key wildlife habitats.

Impacts of Alternative 2 (No Action) - Short-term and long-term wildlife habitats would probably degrade due to an increase in damaging large-scale wildland fires (including vegetation type conversion from native species to cheat grass), limited vegetation treatment options, and lack of a cohesive plan for fire management.

16. Wilderness

Affected Environment

The Inyo Mountains was designated wilderness under the California Desert Protection Act (CDPA) of 1994, about 1 1/2 years after the Bishop RMP/ROD was completed. The Inyo Mountains Wilderness is located in east central California, approximately 5 miles east of Lone Pine. It encompasses a large portion of the Inyo Mountains, covering 205,020 acres which rise to 11,000 feet at Keynot Peak and separate the Owens Valley on the west and the Saline Valley on the east. It is considered a "crown jewel" of the CDPA. The wilderness is managed jointly by the Bureau of Land Management (Bishop Field Office and Ridgecrest Field Office), the Inyo National Forest and Death Valley National Park. The scope of this analysis will focus on the portion managed by the Bishop Field Office, which comprises most of the west slope, from roughly Mazourka Canyon on the north to the community of Keeler on the south. This portion of the wilderness area totals about 45,000 acres.

This wilderness area has maintained most of its pristine character due to the sheer ruggedness of the terrain. The physical relief and precipitous mountainous terrain provides scenic panoramas that include nearby desert as well as the distant Sierra Nevada Mountains. Visitation is low, opportunity for solitude is high. The unit contains several hiking trails which are commonly used by backpackers primarily in the spring and fall. There is evidence of historic and prehistoric human use of the area, as well as a National Register Historic Site (Saline Valley Salt Tram) and numerous historic features. Vegetation includes creosote; shadscale scrub; big sagebrush; lush riparian areas in isolated canyons; and pinyon -juniper woodland, bristlecone and limber pine on the higher reaches.

Environmental Consequences

Impacts of Alternative 1 (Proposed Action) - The impact of the Proposed Action to the area's wilderness values would include enhancement of the area's naturalness and maintenance of the cultural resource features that contribute to the area's wilderness character. The FMP's goal to restore fire's natural, unimpeded role in wilderness would in the long term reestablish natural vegetation patterns and conditions. Impacts to primitive and unconfined recreation might be adversely affected in burned areas in the short term, although the likelihood of human use in burned areas is low in the wilderness. In the long term, the wildfire's effects on the landscape would disappear and restore the area's primitive recreation opportunities. The additional goal to manage fire's role within the context of protecting life and property would maintain features such as the Saline Valley Salt Tram and other historic sites.

Mechanical vegetation manipulation in pinyon-juniper zones to protect areas around historic features such as the Salt Tram would leave evidence of human use for decades. It is likely that maintenance would also be needed periodically. Any proposal to perform vegetation manipulation in the wilderness to protect cultural resources would be analyzed on a project level with public input. The BLM would assess these prescriptions further to determine how to meet the minimum requirements for wilderness administration including use of "minimum tool" applications.

Impacts of Alternative 2 (No Action) - The impact of this alternative would have an adverse effect on wilderness values. Wildland fires would continue to be suppressed under this alternative. This would impede natural plant succession patterns, inhibit development of a vegetative mosaic, and continue to depress the natural disturbance regime, which form the wilderness' ecological diversity. Additionally, suppression tactics would compound fuels buildup in unburned areas, increasing the likelihood of large, high-intensity wildland fires. The fuel buildup in the pinyon-juniper zones would increase the vulnerability of historic features to damage from a catastrophic wildfire.

B. Cumulative Impacts: The cumulative effects of the Proposed Action are all positive, as the purpose of the Proposed Action is simply to incorporate the specific FMU objectives and strategies contained in the FMP as a programmatic element of the RMP and to use these fire management objectives and strategies to reach desired RMP decisions. The greatest impact and risk to nearly all elements of the affected environment is large-scale, high intensity wildland fire. The Proposed Action generally suppresses most wildland fires while they are small, except where lower fire intensity creates a beneficial effect to the environment, and human life, private property, and other high value resources are not at risk. Prescribed fire and non-fire treatments are the primary means of vegetation manipulation. Project plans would still be prepared and an appropriate level of environmental analysis would be conducted before any site-specific treatments prescribed by the FMP are implemented.

CHAPTER IV – PUBLIC INVOLVEMENT, CONSULTATION, AND COORDINATION

A. Public Involvement: On April 30, 2004, the Bishop Field Office issued a news release inviting the interested public to attend meetings to review, evaluate, and comment on its proposed FMP. These pre-scoping meetings were held on May 17, 2004 at the Memorial Hall in Bridgeport, California and May 18, 2004 at the Bishop Field Office in Bishop, California. The meetings were workshop-style, with copies of the Draft FMP and maps available for inspection. The meeting in Bridgeport drew one person and the meeting in Bishop drew four people. Discussion and comments at these meetings were generally supportive of our FMP efforts and direction. Much of the discussion and comments were outside the scope of the FMP, and were specific to past individual wildland fires and/or inter-agency coordination.

On May 3, 2004, a letter was sent to approximately 100 individuals, groups, and organizations who have previously expressed interest in Bishop Field Office land and resource management activities. One letter was received from the California Department of Transportation requesting continued coordination in a variety of areas. All of the areas listed were outside the scope of this analysis.

On May 25, 2004 a Notice of Intent (NOI) to *Prepare a Proposed Resource Management Plan Amendment and Associated Environmental Assessment for the BLM Bishop Field Office* appeared in the *Federal Register*. The publication of the NOI initiated the formal 30-day public scoping process.

B. Persons/Agencies Consulted: The following persons and agencies were consulted regarding this Proposed Action:

- Mono County Board of Supervisors
- Inyo County Board of Supervisors
- Bodie Coordinated Resource Management Group
- Inyo County Collaborative Planning Team
- Bureau of Land Management – Ridgecrest Field Office
- Bureau of Land Management – Carson City District Office
- Inyo National Forest
- Humboldt - Toiyabe National Forest – Bridgeport Ranger District
- National Park Service - Manzanar National Historic Site
- National Park Service – Devil's Postpile National Monument
- Calif. State Parks - Bodie State Historic Park
- Calif. Dept. of Fish and Game
- Calif. Dept. of Forestry
- California Department of Transportation
- Great Basin Unified Air Pollution Control District
- Los Angeles Department of Water and Power
- Washo Tribe
- Coleville Tribe
- Bridgeport Indian Colony
- Mono Lake Indian Community
- Benton Paiute Reservation

- Bishop Indian Tribal Council
- Big Pine Band of the Owens Valley
- Fort Independence Band of Paiute Indians
- Lone Pine Paiute – Shoshone Reservation
- Timbisha Shoshone Tribe

C. List of Preparers:

- Mark Gish, Range Conservationist, BLM Bishop Field Office
- Anne Halford, Botanist, BLM Bishop Field Office
- Kirk Halford, Archeologist, BLM Bishop Field Office
- Debra Hein, Interagency Fire Mitigation Specialist, BLM Bishop Field Office/Inyo NF
- Dale Johnson, Fuels Specialist, BLM Bishop Field Office
- Matt Kingsley, Interagency Fire Mgmt. Officer, BLM Bishop Field Office/Inyo NF
- Steve Nelson, Wildlife Biologist/GIS Specialist, BLM Bishop Field Office
- Joe Pollini, Supervisory Resource Management Specialist, BLM Bishop Field Office
- Terry Russi, Wildlife Biologist, BLM Bishop Field Office

APPENDICIES

Appendix A: Map of Bishop Field Office Fire Management Units
Appendix B: Bishop Field Office Fire Management Plan
Appendix C: Bishop Field Office Rare Plants List

Reviewed By: _____ **Date:** _____
Environmental Coordinator

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PROPOSED DECISION and FINDING OF NO SIGNIFICANT IMPACT

Subject to the 30 day Protest Period and the Governor's Consistency Review, it is my Proposed Decision to amend the Bishop Resource Management Plan (RMP) to incorporate the fire management objectives and strategies for the seven FMUs, as described in the Bishop FMP, Chapter III, Section D (see Appendix B), to cover all BLM lands within the Bishop Field Office.

I have reviewed this Environmental Assessment (EA) and find the Proposed Action is in conformance with the existing Bishop Field Office RMP (1993). The Proposed Action will supplement the RMP with those fire management objectives and strategies described in the EA.

I have determined that this Proposed Decision will not have any significant impacts on the human environment and that an Environmental Impact Statement is not required. Furthermore, the Proposed Decision requires no mitigation measures or stipulations.

Recommended By: _____ **Date:** _____
Bill Dunkelberger
Field Office Manager

Approved By: _____ **Date:** _____
Mike Pool
California State Director